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- The method as claimed in claim 12, further comprising winding a pad between successive layers of said material.
- The method as claimed in claim 20 wherein said pad has a Young's modulus less than that of said material.
- The method as claimed in claim 20, wherein said pad is continuously wound with said material.
- 23. The method as claimed in claim 20, further comprising: completing said winding of said material onto said spool; and winding said material onto a second spool while removing said pad from said winding.
- 15 24. A method of winding a material on a spool comprising:

winding said material onto a first spool while inserting a pad between successive layers of said material and providing a draw tension on said material; and

winding said material onto a second spool from said first spool while removing said pad from said windings of said material.

25. The method as claimed in claim 24, further comprising placing a buffer pad on said first spool prior to winding said material.

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- 26. The method as claimed in claim 25, wherein said buffer pad has a Young's modulus less than that of said material.
- The method as claimed in claim 24, wherein said pad has a Young's modulus less than that of said material.
- 28. The method as claimed in claim 24, further comprising varying said draw tension while said material is winding onto said first spool.
- 29. The method as claimed in claim 28, wherein said draw tension is decreased while said material is winding onto said first spool.
- 30. The method as claimed in claim 28, wherein said draw tension is varied according to a monotonical function.
- 31. The method as claimed in claim 24, further comprising varying an angular speed of said first spool while said material is winding onto said first spool.
- 32. The method as claimed in claim 31, wherein said angular speed is increased while said material is winding onto said first spool.
- 33. The method as claimed in claim 31, wherein said angular speed is varied according to a monotonical function.

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34. A method for winding a buffer tube having at least one optical fiber therein onto a spool comprising:

placing a buffer pad on an outer surface of a core of said spool;

winding said buffer tube onto said buffer pad while applying a draw tension to said buffer tube; and

functionally changing said drawing tension as said buffer tube is wound onto said spool and said buffer pad.

- 35. The method as claimed in claim 34, wherein said changing occurs according to a monotonical function which monotonically varies said draw tension during said winding.
- 36. The method as claimed in claim 35, wherein said monotonical function monotonically decays said draw tension during said winding.
- 37. The method as claimed in claim 34, wherein the Young's modulus of said buffer pad is lower than the Young's modulus of said buffer tube.
- 38. The method as claimed in claim 34, wherein a diameter of said spool at a point where said buffer tube is winding on said spool is larger than 100 mm.